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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/930,528	08/15/2001	Jingyu Zhou	15-978	1710

7590

03/09/2005

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EXAMINER

TRAN, DZUNG D

ART UNIT	PAPER NUMBER
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2633

DATE MAILED: 03/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/930,528

Applicant(s)

ZHOU ET AL.

Examiner

Dzung D Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2001.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-43 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-14, 23, drawn to a method for engineering of a connection in a WDM photonic network with a plurality of flexibility sites connected by links, comprising: (a) calculating a physical end-to-end route between a source node and a destination node; (b) setting-up a communication path along said end-to-end route; (c) testing an operational parameter of said communication path; and (d) comparing said operational parameter with a margin tolerance and declaring said communication path as established, whenever said operational parameter is above said margin tolerance, classified in class 398, subclass 25.

II. Claims 15-17, drawn to a method of switching a communication path at a node of a photonic network, comprising: routing said communication path from an input port of said node to an output port, whenever an operational parameter of said communication path is above a threshold; and OEO processing said communication path at said node, whenever said operational parameter is under said threshold wherein OEO processing comprises blocking said communication path from passing through said node in optical format; and switching said communication path through said regenerator for regenerating the data signal carried by said communication path for conditioning said operational parameter above said threshold, classified in class 398, subclass 57.

III. Claims 18-22, 24-32, drawn to a communication path for connecting a source node with a destination node along one or more intermediate nodes of a

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photonic network, said communication path operating in one of a monitoring mode and a maintenance mode, according to a path operational parameter, whenever said operational parameter is under said threshold wherein OEO processing comprises blocking said communication path from passing through said node in optical format; and switching said communication path through said regenerator for regenerating the data signal carried by said communication path for conditioning said operational parameter above said threshold, classified in class 398, subclass 45.

IV. Claims 33-43, drawn to a control system for engineering connections in a photonic switched network, with a plurality of wavelength cross-connects WXC connected by links comprising: a plurality of control loops, each for monitoring and controlling a group of optical devices, according to a set of loop rules; a plurality of optical link controllers, each for monitoring and controlling operation of said control loops provided along a link; a plurality of optical vertex controllers, each for monitoring and controlling operation of said control loops provided at a wavelength cross-connect; and a network connection controller for constructing a communication path within said photonic switched network and for monitoring and controlling operation of said optical link controller and said optical vertex controller, classified in class 398, subclass 3.

2. The inventions are distinct, each from other because of the following reasons:

Inventions I, II, III and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different

modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are unrelated because invention I is related to a method for (a) calculating a physical end-to-end route between a source node and a destination node; (b) setting-up a communication path along said end-to-end route; (c) testing an operational parameter of said communication path; and (d) comparing said operational parameter with a margin tolerance and declaring said communication path as established, whenever said operational parameter is above said margin tolerance. Invention II related to routing said communication path from an input port of said node to an output port, whenever an operational parameter of said communication path is above a threshold; and OEO processing said communication path at said node, whenever said operational parameter is under said threshold wherein OEO processing comprises blocking said communication path from passing through said node in optical format; and switching said communication path through said regenerator for regenerating the data signal carried by said communication path for conditioning said operational parameter above said threshold. Invention III related to communication path operating in one of a monitoring mode and a maintenance mode, according to a path operational parameter. Invention IV related to a control system for engineering connections in a photonic switched network, comprising: a plurality of control loops, each for monitoring and controlling a group of optical devices, according to a set of loop rules; a plurality of optical link controllers, each for monitoring and controlling operation of said control loops provided along a link; a plurality of optical vertex controllers, each for monitoring and controlling operation of said control loops

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provided at a wavelength cross-connect; and a network connection controller for constructing a communication path within said photonic switched network and for monitoring and controlling operation of said optical link controller and said optical vertex controller. The invention I and II different because invention I does not have OEO processing said communication path at said node, whenever said operational parameter is under said threshold wherein OEO processing comprises blocking said communication path from passing through said node in optical format; and switching said communication path through said regenerator for regenerating the data signal carried by said communication path for conditioning said operational parameter above said threshold. Invention I and III different because invention I does not have a communication path operating in one of a monitoring mode and a maintenance mode, according to a path operational parameter. Invention I and IV different because invention I does not have a control system for engineering connections in a photonic switched network, comprising: a plurality of control loops, each for monitoring and controlling a group of optical devices, according to a set of loop rules; a plurality of optical link controllers, each for monitoring and controlling operation of said control loops provided along a link; a plurality of optical vertex controllers, each for monitoring and controlling operation of said control loops provided at a wavelength cross-connect; and a network connection controller for constructing a communication path within said photonic switched network and for monitoring and controlling operation of said optical link controller and said optical vertex controller.

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3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. Because these inventions are distinct for the reasons given above and the search required for Group IV is not required for Groups I, II, III restriction for examination purposes as indicated is proper.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung D Tran whose telephone number is (571) 272-3025. The examiner can normally be reached on 9:00 AM - 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DT

03/02/2005

Dzung Tran

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